

Application No. 10/582,481

Docket No. R2184.0506/P10

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AMENDMENTS TO CLAIMS

1. (Currently amended) A method of recording information using a laser on a multilayer optical disk having a plurality of recording layers, the plurality of recording layers including a first recording layer and a second recording layer, the second recording layer being a recording layer adjacent the first recording layer, the first recording layer having a first test writing area to be used for calibration of write power and the second recording layer having a second test writing area to be used for calibration of write power, wherein ~~a first region of the first test writing area is completely superposed with a second region of the second test writing area when considered in the direction in which the laser is arranged to irradiate, the method comprising:~~

if the second region of the second test writing area is unrecorded, recording data in ~~[[the]]~~ a second region of the second test writing area, thereby converting the second region of the second test writing area into a recorded state;

once the second region of the second test writing area has been converted into a recorded state, performing test writing in ~~[[the]]~~ a first region of the first test writing area; and

wherein before performing the test writing in the first region of the first test writing area, if the first region of the first test writing area is unrecorded, the method comprises: recording data in the first region of the first test writing area, thereby converting the first region of the first test writing area into a recorded state, and then clearing the first region of the first test writing area; and

wherein the clearing of the first region of the first test writing area comprises performing an erasure operation to make the first region unrecorded; and

wherein the method further includes the step of recording dummy data in the first recording layer, and wherein the step of recording dummy data in the first recording layer occurs subsequent to the step of performing the test writing in the first region of the first test writing area.

2. (Previously presented) A method according to Claim 1 or Claim 6, wherein the second recording layer is the next recording layer with respect to the first recording layer in the direction in which the laser is arranged to irradiate.

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3. (Canceled)

4. (Previously presented) A method according to Claim 6, wherein before performing the test writing in the first region of the first test writing area, if the first region of the first test writing area is unrecorded, the method comprises: recording data in the first region of the first test writing area, thereby converting the first region of the first test writing area into a recorded state; and then clearing the first region of the first test writing area.

5. (Canceled)

6. (Currently amended) A method of recording information using a laser on a multilayer optical disk having a plurality of recording layers, the plurality of recording layers including a first recording layer and a second recording layer, the second recording layer being a recording layer adjacent the first recording layer, the first recording layer having a first test writing area to be used for calibration of write power and the second recording layer having a second test writing area to be used for calibration of write power, wherein ~~a first region of the first test writing area is completely superposed with a second region of the second test writing area when considered in the direction in which the laser is arranged to irradiate, the method comprising:~~

if the second region of the second test writing area is unrecorded, recording data in ~~[[the]]~~ a second region of the second test writing area, thereby converting the second region of the second test writing area into a recorded state;

once the second region of the second test writing area has been converted into a recorded state, performing test writing in ~~[[the]]~~ a first region of the first test writing area; and

wherein, before performing the test writing in the first region of the first test writing area, the method comprises clearing the first region of the first test writing area; and

wherein the clearing of the first region of the first test writing area comprises performing an erasure operation to make the first region unrecorded; and

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wherein the method further includes the step of recording dummy data in the first recording layer, and wherein the step of recording dummy data in the first recording layer occurs subsequent to the step of performing the test writing in the first region of the first test writing area.

7. (Previously presented) A method according to Claim 1 or Claim 6, wherein for the first region of the first test writing area, or the second region of the second test writing area, the respective step of recording data in the region thereby converting the region into a recorded state comprises performing an operation to make the region logically zero.

8. (Currently amended) Apparatus arranged to record information to a multilayer optical disk having a plurality of recording layers using a laser, the plurality of recording layers including a first recording layer and a second recording layer,

the second recording layer being a recording layer adjacent the first recording layer, the first recording layer having a first test writing area to be used for calibration of write power and the second recording layer having a second test writing area to be used for calibration of write power, wherein ~~a first region of the first test writing area is completely superposed with a second region of the second test writing area when considered in the direction in which the laser is arranged to irradiate, wherein~~

if the second region of the second test writing area is unrecorded, the apparatus is arranged to record data in ~~[[the]]~~ a second region of the second test writing area, thereby converting the second region of the second test writing area into a recorded state;

once the second region of the second test writing area has been converted into a recorded state, the apparatus is arranged to perform test writing in ~~[[the]]~~ a first region of the first test writing area; and

wherein, before performing the test writing in the first region of the first test writing area, the apparatus is arranged to clear the first region of the first test writing area; and

wherein the clearing of the first region of the first test writing area comprises performing an erasure operation to make the first region unrecorded; and

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wherein the apparatus is arranged to record dummy data in the first recording layer, and wherein the recording of dummy data in the first recording layer occurs subsequent to the test writing in the first region of the first test writing area.

9. (Original) Apparatus according to Claim 8, wherein the second recording layer is the next recording layer with respect to the first recording layer in the direction in which the laser is arranged to irradiate.

10. (Canceled)

11. (Previously presented) Apparatus according to Claim 8 or Claim 9, wherein before performing the test writing in the first region of the first test writing area, if the first region of the first test writing area is unrecorded, the apparatus is arranged to: record data in the first region of the first test writing area, thereby converting the first region of the first test writing area into a recorded state; and then to clear the first region of the first test writing area.

12-13. (Canceled)

14. (Previously presented) Apparatus according to Claim 8 or Claim 9, wherein for the first region of the first test writing area, or the second region of the second test writing area, the apparatus is arranged such that respective recording of data in the region thereby converting the region into a recorded state comprises performing an operation to make the region logically zero.

15-30. (Canceled)

31. (New) A method of recording information using a laser on a multilayer optical disk having a plurality of recording layers including a first recording layer and a second recording layer adjacent to the first recording layer, the first recording layer and the second recording layer including a first test writing area and a second test writing area to be used for calibration of write

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power, respectively, the first test writing area is completely superposed with the second test writing area when considered in a direction in which the laser is arranged to irradiate, the method comprising:

converting the second test writing area into a recorded state by recording dummy data in the second test writing area if the second test writing area is unrecorded;

converting the first test writing area into a recorded state by recording dummy data in the first test writing area if the first test writing area is unrecorded;

once the first and second test writing areas are converted into the recorded state, clearing one of the first and second test writing areas corresponding to one of the first and second recording layers specified for recording user data;

performing test writing in the cleared one of the first and second test writing areas; and

recording dummy data in the cleared one of the first and second test writing areas based on a result of the test writing.

32. (New) The method as claimed in claim 31, wherein said clearing clears the one of the first and second test writing areas by erasing the recorded dummy data from the one of the first and second test writing areas:

33. (New) The method as claimed in claim 32, further comprising: recording the user data in the specified one of the first and second recording layers based on the result of the test writing after recording the dummy data in the cleared one of the first and second test writing areas.